AMENDMENTS TO THE CLAIMS

1. (ORIGINAL) A method in an OFDM direct conversion receiver configured for receiving a wireless signal carrying data, the method including:

recovering first and second components from the wireless signal by mixing the wireless signal with first and second carrier frequency signals, respectively, the second carrier frequency signal phase-shifted by a prescribed amount relative to the first carrier frequency signal;

determining first and second DC offset components based on filtering prescribed subcarrier components from a prescribed preamble portion of each of the first and second components, respectively; and

outputting corrected first and second components of the wireless signal, for recovery of the data, based on removing the first and second DC offset components from the first and second components, respectively.

2. (ORIGINAL) The method of claim 1, wherein the filtering includes:

supplying the first and second components to a digital finite-impulse-response filter configured for filtering the prescribed subcarrier components and outputting filtered samples; and

averaging the filtered samples associated with the prescribed preamble portion to obtain the first and second DC offset components.

3. (ORIGINAL) The method of claim 2, wherein the averaging step includes accumulating the filtered samples from within the prescribed preamble portion, the prescribed preamble portion identified based on detecting a first and a last of a prescribed number of short training symbols in the data.

4. (ORIGINAL) The method of claim 3, wherein the accumulating step includes detecting the short training symbols, including detecting the first and the last of the short training symbols, each of the short training symbols including the prescribed subcarrier components, the

filtering including removing the prescribed subcarrier components from each short training sample for generation of the corresponding filtered sample.

5. (ORIGINAL) The method of claim 4, wherein:

the first and second components are I and Q components, respectively, the filtering including outputting the filtered samples in response to assertion of a signal representing the detection of the short training symbols;

the averaging step further includes normalizing the accumulated filtered samples relative to a number of samples having been accumulated to obtain the first and second DC offset components.

6. (ORIGINAL) An OFDM direct conversion receiver configured for receiving a wireless signal carrying data, the receiver including:

an analog front end configured for recovering first and second components from the wireless signal by mixing the wireless signal with first and second carrier frequency signals, respectively, the second carrier frequency signal phase-shifted by a prescribed amount relative to the first carrier frequency signal;

DC offset estimator configured for determining first and second DC offset components based on filtering prescribed subcarrier components from a prescribed preamble portion of each of the first and second components, respectively; and

a compensator configured for outputting corrected first and second components of the wireless signal, for recovery of the data, based on removing the first and second DC offset components from the first and second components, respectively.

7. (ORIGINAL) The receiver of claim 6, wherein the DC offset estimator includes:

a digital finite-impulse-response filter configured for filtering the prescribed subcarrier components and outputting filtered samples, and

an averaging circuit configured for averaging the filtered samples associated with the prescribed preamble portion to obtain the first and second DC offset components.

8. (ORIGINAL) The receiver of claim 7, wherein the averaging circuit includes an accumulator configured for accumulating the filtered samples from within the prescribed preamble portion, the prescribed preamble portion identified based on detecting a first and a last of a prescribed number of short training symbols in the data.

9. (ORIGINAL) The receiver of claim 8, wherein the DC offset estimator further includes a detector configured for asserting a detection signal in response to detecting the short training symbols, including the first and the last of the short training symbols, each of the short training symbols including the prescribed subcarrier components, the digital finite-impulse-response filter configured for removing the prescribed subcarrier components from each short training sample, in response to the detection signal, for generation of the corresponding filtered sample.

10. (ORIGINAL) The receiver of claim 9, wherein:

the first and second components are I and Q components, respectively;

the averaging circuit including a shifter configured for normalizing the accumulated filtered samples relative to a number of samples having been accumulated to obtain the first and second DC offset components.

11. (NEW) The method of claim 1, wherein the removing includes digitally subtracting the first and second DC offset components from the first and second components, respectively.

12. (NEW) The receiver of claim 6, wherein the compensator is configured for removing the first and second DC offset components based on digitally subtracting the first and second DC offset components from the first and second components, respectively.